



Title	We Don't Need No Explanation
Author(s)	Asay, JF
Citation	Philosophical Studies, 2018, v. 175 n. 4, p. 903-921
Issued Date	2018
URL	http://hdl.handle.net/10722/243623
Rights	The final publication is available at Springer via http://dx.doi.org/10.1007/s11098-017-0898-1; This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

We Don't Need No Explanation

Jamin Asay

University of Hong Kong

asay@hku.hk

Forthcoming in *Philosophical Studies*

Abstract

Explanation has played myriad roles in truthmaker theory. The notion of explanation is sometimes thought to give content to the very idea of truthmaking, and is sometimes used as a weapon to undermine the entire point of truthmaker theory. I argue that the notion of explanation is dialectically useless in truthmaker theory: while it's true that truthmaking offers a form of explanation, this claim is theoretically unilluminating, and leaves truthmaker theorists vulnerable to various kinds of attack. I advocate an alternative approach to truthmaker theory that downplays the role of explanation, and show how it releases the enterprise from a variety of problematic commitments that have troubled truthmaker theorists. The “ontology-first” approach to truthmaking that I advocate not only restores the initial impulse behind truthmaking, but also has a number of theoretical advantages. Most prominently, it dodges the infamous problem of negative existentials, and lessens truthmaker theory's dependence on contentious intuitive judgments about both explanation and truthmaking.

1. Introduction

Appeals to explanations, explanatory value, and explanatory relations are pervasive in philosophy. What constitutes a good explanation, how explanations are structured, and how we evaluate explanations are all matters about which there is very little if any consensus. Nevertheless, the notion of explanation often plays a critical dialectical role in philosophical debates. This is just as true in metaphysics as in other areas. My focus in this paper is how the notion of explanation is and ought to be deployed with respect to the notion of truthmaking. The conclusion I defend is that explanation has no substantive role to play in the theory of truthmaking. In general, appeals to explanatory constraints on truthmaking are either empty or trivial. Therefore, they cut no ice when used to undermine either particular views about truthmakers, or truthmaker theory itself. Furthermore, the prominence that the notion of explanation has enjoyed in the literature on truthmaking has produced the unfortunate side effect of clouding what is most valuable about the enterprise, and rendered the view susceptible to what are ultimately misguided critiques.

I begin by offering a presentation of how the notion of explanation is typically applied in discussions of truthmaking. The notion plays a role in both giving content to truthmaking theses, and also critiquing them. Next I turn to a discussion of the nature of explanation itself, which will demonstrate why it cannot have the argumentative force that it has been taken to have. As a result, I will show how truthmaker theorists should respond to explanation-based objections. I conclude by observing how truthmaker theory has been inhibited by its more recent focus on explanation, and showcasing the positive results that follow from divorcing truthmaking and explanation. To accomplish this final aim, I distinguish “explanation-first” truthmaking from “ontology-first” truthmaking, and defend the latter. Ontology-first truthmaking boasts the prominent advantage that it can avoid the problem of negative existentials, and also can sidestep some disputes within truthmaker theory that have led to an impasse.

2. Truthmaking and Explanation

Truthmaker theory begins with the idea that truth depends on reality. When a sentence, belief, or proposition is true, its truth is not some brute, inexplicable feature. Rather, what is responsible for its being true is something in the world. Offering a substantive, philosophical theory of this basic idea is the fundamental goal of the theory of truthmaking. Truthmaker theory is thus an exploration of the relation that ties truth to the world. The notion of explanation enters the scene quickly. Truthmakers, for instance, are said to be the objects *in virtue of which* truth-bearers are true. Truths are true *because* of the existence of their truthmakers. And to invoke the existence or obtaining of things in virtue of or because of other things is to invoke—according to the dominant view—the notion of explanation. In other words, the claim that some proposition $\langle p \rangle$ is true in virtue of the existence of some object T is tantamount to the claim that T explains $\langle p \rangle$'s truth. Here, for example, is Aaron Griffith: “Truthmakers are supposed to account for and explain their truths: entity x is a truthmaker for proposition p only if p is true *because* x exists” (2013: 305; cf. Bigelow 1988: 121, Molnar 2000: 82, Correia 2011: 1, and Perrine 2015: 188). Naoaki Kitamura follows up this remark by noting that “the explanatory constraint on truthmaking to which Griffith appeals is plausible and innocuous to all truthmaker theorists” (2014: 202; cf. Rhoda 2009: 46-47, Schulte 2011: 414, and Asay and Baron 2014: 316-317). As a consequence, not just any relation can play the role of truthmaking. To *make* truth is to *explain* truth, and not all relations are explanatory.

According to this picture, explanation plays a crucial role in truthmaker theory in at least two ways. First, it establishes that a central goal of truthmaker theory is to provide explanations. The business of truthmaker theory is to offer explanations of truth, and perhaps other matters as

well. Chris Daly, for instance, claims that truthmaker theorists are of “one mind” that “the truthmaker principle does explanatory work” (2005: 86). Second, it establishes that any particular case of truthmaking must itself be explanatory—hence the constraint that Griffith articulates above. These explanatory constraints provide a structure for objections leveled either against or within truthmaker theory. Critics can object to truthmaker theory as a whole if they can establish that truthmaker theorists cannot offer good explanations of truth and other matters, or offer inferior explanations. Within truthmaker theory, theorists can object to competing views by charging them with being insufficiently explanatory.

Both styles of argument can frequently be found within the literature on truthmaking. Daly (2005) proposes that truthmaker theory (at least in the hands of John Bigelow and David Armstrong) sets out to explain metaphysical realism and vindicate the correspondence theory of truth. Because it fails to do these things, it fails to achieve its own explanatory *raison d'être*. Furthermore, he charges that particular instances of truthmaking are themselves not explanatory: To claim that an object is a truthmaker for a proposition, or provides for it ontological grounds, may “sound deep and impressive, but perhaps they are only turns of phrase—empty metaphors without explanatory content” (2005: 103). Benjamin Schnieder denounces truthmaker theory as having made a “capital philosophical mistake” because it offers, in effect, explanations of more fundamental matters in terms of less fundamental matters (2006: 39; see Liggins 2012 for a rebuttal). Another common strategy is to undermine truthmaker theory in general by claiming that its explanatory desiderata can be achieved in more ontologically parsimonious ways, without positing truthmakers at all (e.g., Hornsby 2005, Dodd 2007, and Perrine 2015).

Explanation is not just a weapon used against truthmaker theory; it is also deployed by truthmaker theorists themselves to evaluate theories within the enterprise. Griffith (2013) argues that all of the main views about truthmakers for negative existentials (e.g., <Martians don't exist>) fail due to their explanatory deficiencies (see Kitamura 2014 for a response). Sanson and Caplan (2010) argue that the familiar truthmakers offered by presentists for truths about the past are not “proper explanations”. For instance, they deploy this “not explanatory” strategy in order to undermine Alan Rhoda's view that God's memories provide truthmakers for truths involving the past (Caplan and Sanson 2011: 202).

So far I have shown how the notion of explanation has played a critical role in truthmaker theory, serving as a source for objections and criticism. But it has also been put forward for more constructive purposes. Its principal positive contribution has been in giving content to the analysis of the truthmaking relation. According to this view, providing an adequate explanation is not just a theoretical constraint on a view about truthmakers; explanation itself is a part of the truthmaking

relation. This sort of view is perhaps most explicit in Liggins (2005), where the suggestion is that what it is to offer a truthmaker is to offer an explanation of truth. (See also Baron 2013.) The need for such a view arises from the fact that most truthmaker theorists regard bare metaphysical necessitation as insufficient for truthmaking. For something to necessitate a truth is for it to be necessary that, if that thing exists, the claim in question is true. For example, it's necessary that if Socrates exists, the proposition <There is a human> is true, since Socrates is (presumably) essentially human. Socrates is a candidate truthmaker for <There is a human> because he necessitates it; if a proposition can fail to be true in spite of some particular object's existing, then that object is not a suitable truthmaker for the proposition. Socrates is no truthmaker for <There are lions, tigers, and bears>.

As was recognized at least two decades ago (see Restall 1996), taking necessitation to be sufficient for truthmaking yields the result that all objects are truthmakers for all necessary truths. Socrates necessitates <7 is prime> and—if theists are correct—<God exists>, but most concede that he does not make them true.¹ Why not? Liggins's answer is that Socrates's existence in no way explains why either <7 is prime> or <God exists> is true. If anything makes them true, it's objects like numbers and God, not a snub-nosed philosopher. By invoking explanation, truthmaker theorists have harnessed a tool that enables them to avoid the trivialization of truthmakers for necessary truths. A similar strategy can be deployed in cases of mismatched contingent truthmaking as well. Assuming the necessity of origins, Barack Obama, Jr. necessitates <Barack Obama, Sr. exists>. But only the father, and not the son, is responsible for the truth of the father's existence. Why? Because truths about and only about the father are not explained by the son.

3. Deflating Explanation

In the previous section I presented the various ways, both critical and constructive, that the notion of explanation has surfaced in the literature on truthmaking. The truthmaking relation itself has been analyzed in terms of explanation, and constraints on explanatoriness are applied to theses about when truthmaking does or doesn't hold. Furthermore, truthmaker theory itself has come under criticism for its supposed explanatory poverty. Ultimately, I believe this state of affairs to be unfortunate. My objection is not that truthmaking does not involve explanation, and so this focus is misguided. I could support that view only if I felt that there were sufficient unambiguous content to the notion of explanation at stake. My concern, then, is showing that the appeal to explanation in truthmaking is too vacuous, vague, or ambiguous to be informative. Claims that are

¹ There are exceptions. See, for instance, Briggs 2012 and Angere 2015.

made in terms of explanation are better articulated in non-explanatory terms. Furthermore, setting the debate in terms of explanation has a tendency to play directly into the hands of the critics of truthmaker theorists, as it serves to obscure the real theoretical ambitions of truthmaker theory.

My first complaint is that the claim that truthmakers offer explanations is too vacuous, vague, or ambiguous to be informative. My charge is not that the notion of explanation is itself too unclear or controversial, something to be condemned to Hume's metaphysical bonfire. Liggins appropriately responds to that concern:

Some people might hold that *explanation* is an unpleasantly murky or controversial concept, best excluded from our philosophical theories. In reply to this, I would claim that the confusion and controversy concern what it is to be an explanation; the notion itself is intuitively clear. After all, who could doubt that the truth of 'Grass is green' is explained by the colour of grass rather than the flavour of pineapples?" (2005: 115)

Indeed, I do not believe that 'explain' is a bad word in philosophy (as Williamson (1998: 259) believes about 'exist'). My view is rather that 'explain' is not a special word. Its meaning is too diffuse, too variable, too contextual to be put to the very specific philosophical labors for which it is used in truthmaker theory. Here I echo the view of Talasiewicz et al. when they claim that "the notion of explanation illuminates nothing in truthmaking" (2013: 602).

My charge, then, is that—even if it's true—it is not sufficiently informative to assert that truthmakers aim to explain the truths they make true. To see why, consider some of the various attempts to say what explanations in general consist in. What is it to offer an explanation for a truth? These candidate explanations, we shall see, frequently have nothing to do with truthmakers. They also reveal how philosophically contentious it is to make the claim that something is or is not explanatory; as a result, it is dialectically dangerous for truthmaker theorists to put prominent weight on the notion of explanation.

One classic view from the philosophy of science maintains that in order to explain a truth, one must show how it follows deductively from a set of true premises, an essential member of which is a law of nature (Hempel and Oppenheim 1948). Explanations according to the deductive-nomological (D-N) account are arguments. For example, suppose we want to explain the truth of <The liquid in my glass boils at 100 degrees Celsius>. A D-N explanation runs as follows:

- (1) All pure samples of water at standard pressure boil at 100 degrees Celsius.
- (2) The liquid in my glass is a pure sample of water at standard pressure.

Therefore,

(3) The liquid in my glass boils at 100 degrees Celsius.

The argument's first premise is a law of nature² and is indispensable to the soundness of the argument, so the argument qualifies as a D-N explanation. Or consider this attempt at explanation:

The liquid in the glass is water, and in order for the vapor pressure of the water to reach the amount of air pressure outside the water at standard pressure, the temperature needs to reach 100 degrees Celsius. When it does so, bubbles of vaporized water are released from the water and into the air, producing the phenomenon of boiling. The amount of heat necessary for producing a boil is a function of the strength of the molecular forces between individual water molecules. Had those forces been different, the boiling point would have been different than 100 degrees Celsius.

Both of these responses, I maintain, can be perfectly adequate explanations of the truth of <The liquid in my glass boils at 100 degrees Celsius>, depending on the context in which they are deployed. They provide insight into the matter, and show how the particular fact in question relates to more general nomological facts. Neither, though, is in any way immediately about truthmakers.

Now consider a "truthmaker explanation" of the proposition in question. That is to say, let's reflect on what sort of entity one might propose to be a truthmaker for the proposition. First we should clear away some non-starting views. The truthmaker for <The liquid in my glass boils at 100 degrees Celsius> is not a *sui generis* entity called 'the fact that the liquid in my glass boils at 100 degrees Celsius'. The whole point of truthmaker theory, going all the way back to Russell's logical atomism (1918), is to offer truthmakers for truths in a motivated and ontologically economical way. No truthmaker theorist—perhaps excepting Fiocco 2013—posits a unique fact for every true proposition.³ (Readers influenced by, e.g., Schnieder 2006 may receive a different impression.) Nor should the call for a truthmaker be answered as follows:

<The liquid in my glass boils at 100 degrees Celsius> is true because the liquid in my glass boils at 100 degrees Celsius.

² Well, not really. See Chang 2004.

³ Grounding theorists are another story. See, e.g., Rosen 2010.

There are many critics of truthmaker theory who argue that such “because” claims capture all there is to say about truthmaking (e.g., Hornsby 2005 and Dodd 2007). But it’s unclear whether or not they do much more than showcase “semantic descent”. The “because” claims move from a metalinguistic truth ascription to a first-order claim about the world (and assert a kind of priority between them).⁴ There is nothing problematic about the claims themselves—I suppose they’re true, though rather uninformative—but they shouldn’t be thought of as providing *the* explanation of the truth of first-order claims in any privileged sense (such that the availability of such claims nullified all other explanatory inquiries). To be told that the explanation of $\langle p \rangle$ ’s truth is that p is to be told nothing useful at all *vis-à-vis* truthmaking. It doesn’t tell you what the truthmaker for the proposition is—it just asserts an unstated kind of priority between a truth and a semantically ascended truth. So while there may be some explanatory relationship between $\langle \langle p \rangle \text{ is true} \rangle$ and $\langle p \rangle$, we cannot infer that it’s a truthmaking relationship, and that all truthmaking ideas can be reduced to it.

A genuine “truthmaker explanation” for $\langle \text{The liquid in my glass boils at 100 degrees Celsius} \rangle$ would be something more like the following: a combination of the glass, the water inside, the surrounding air molecules, and various laws of nature that govern the interactions between them. These various things might collectively form the truthmaker, or perhaps the mereological sum of them (if it exists) is the truthmaker. Regardless of the specifics, the truthmaker theorist offers an ontological laundry list: these are the things in the world responsible for the truth of the proposition in question. Because they exist, the proposition in question is true.

If this list of worldly objects serves as an explanation, it is of a very different sort than the other two attempts above. Yet it does nothing to undermine them or their status as explanations. What this observation shows is that truthmaker theory has no exclusive right to providing “the explanation of truth”. Explanations are things that serve our cognitive interests. An explanation teaches us something new, or connects ideas we already have in new and illuminating ways. What qualifies as an explanation, and what determines how good an explanation is is a function of pragmatics and context (see van Fraassen 1980). Besides, the very idea of something being *the* explanation of a truth is implausible. The above explanations of the boiling point of water have their virtues, but they do not, for instance, explain what it is about the molecular forces between H₂O molecules that produces a boiling point of exactly 100 degrees. They don’t mention H₂O molecules at all! Other, more informative explanations might. Plus, there are alternative

⁴ Semantic ascent and descent are usually associated with material biconditionals such as ‘ $\langle p \rangle$ is true if and only if p ’. My current claim is that the “because” formulations assert a direction of priority between the components of the biconditionals. But to assert that priority is not to offer a truthmaker.

explanations that are fit for various purposes. Why does the liquid in my glass boil at 100 degrees? Because the liquid is water, and by definition ‘100 degrees’ refers to the boiling point of water. This explanation might seem willfully ignorant of the relevant chemistry, but it might be just the thing for, say, an alien chemist who understands the phenomenon of boiling perfectly well but does not understand our temperature scales or how they were established.

One way to illustrate the fluidity of explanatory demands is to consider the contrastive nature of explanatory questions (cf. van Fraassen 1980: 127). Suppose I attend a Paul McCartney nostalgia concert and he performs the song “Help!”. In that case, the proposition <Macca sang lead on “Help!”> is true. If asked for a truthmaker for this truth, one might provide an event, say, if events happen to figure into one’s ontology. (There will be no uncontroversial truthmaker; metaphysics is contentious. Keep in mind that virtually no one posits an entity called ‘the fact that Macca sang lead on “Help!”’.) In offering such a truthmaker, note that one is not doing what one frequently does when explaining the truth of <Macca sang lead on “Help!”>. For requests for explanation typically take the form of ‘why’ questions: Why did Macca sing lead on “Help!”? A ‘why’ question is answered with a ‘because’ claim, and ‘because’ claims are the hallmark of explanation, at least according to many truthmaker theorists and their opponents. The important thing to notice here is how this simple ‘why’ question is actually several:

- (A) Why did *Macca* sing lead on “Help!”? (Because John is dead.)
- (B) Why did Macca *sing* lead on “Help!”? (Because instrumental rock is boring.)
- (C) Why did Macca sing *lead* on “Help!”? (Because Paul is no backup singer.)
- (D) Why did Macca sing lead on “*Help!*”? (Because he’s the ex-Beatle on stage.)

Here we have four distinct explanatory requests, and four distinct explanations. Being told what the truthmaker is for <Macca sang lead on “Help!”> satisfies exactly none of them. This is not an objection to truthmaker theory: it just goes to show that not all explanations of truth are truthmaking explanations. What the contrastive nature of explanation does show is that there is no privileged answer to the question ‘Why is <*p*> true?’. Those who put any stock in a single, privileged way of explaining truth—be they proponents or opponents of truthmaker theory—are missing the vicissitudinous nature of explanation.⁵

⁵ One might suggest drawing a sharp distinction between explaining, say, why Macca sang lead on “Help!”, and why <Macca sang lead on “Help!”> is true, but doing so draws an unwarranted chasm between two nearly identical states of affairs. Furthermore, to suggest that truthmaker theory is concerned with only one of these kinds of truths (namely,

The upshot is no more than the familiar idea that claims to being explanatory or not are sensitive to context and pragmatic interests. Truthmaking explanations, like all other explanations, do not enjoy any privileged or exclusive claim to explaining truth. All explanations, ultimately, are explanations of truth. Thus, truthmaking opponents do make a valid point when they demonstrate that there are other, non-truthmaking explanations of truth. But by the same token, the availability of those non-truthmaking explanations does not thereby render truthmaking explanations pointless or redundant. Truthmaking explanations are relevant and have a place in philosophy if they address specific questions that aren't being addressed otherwise. For example, none of the four 'because' claims above answers the ontological question of what sort of ontology is required in order for <Macca sang lead on "Help!"> to be true.

In the last section of the paper, I will present my view as to what sorts of explanatory questions truthmaker theorists are specially equipped to answer. My present point is that the explanation-first dialectic in truthmaker theory has put too much theoretical weight on a notion that is not fit for the task. Truthmaker theorists all too often present themselves as answering questions of the form 'Why is the proposition <*p*> true?'. This sets up their opponents to offer competing explanations that aren't as ontologically committing, and to claim that answering the question without recourse to truthmakers reveals truthmaker theory to be devoid of any interest.⁶ In the extreme case, the truthmaking opponent answers 'Why is the proposition <*p*> true?' simply with 'Because *p*'. That *is* an answer, and a necessarily available one in every case, and so it threatens to undermine truthmaker theory when understood as the attempt to "explain why truths are true". If the ambitions of truthmaker theory—an enterprise that takes itself to be involved in difficult and substantive metaphysical inquiry—can be accomplished by simple semantic descent, then it truly is in trouble. Fortunately, truthmaker theory need not be understood in this explanatory way. I shall return to my positive program for truthmaker theory in the final section.

4. Taking Explanation out of Truthmaking

In the previous section, I argued that explanation is an inappropriate theoretical tool upon which to develop truthmaker theory. One salient reason why is that the explanation-first approach to truthmaker theory plays right into the hands of its critics. If the job of truthmaker theory is to "explain truths", then there will always be explanations at hand that take no explicit recourse to ontology. Given considerations of parsimony, truthmaking explanations will therefore always

the semantically ascended ones) is to misinterpret the ambitions of truthmaker theory. Truthmaker theorists concern themselves with the ontological grounds for all truths, not just semantically ascended ones.

⁶ This style of argument can be found in, e.g., Dodd 2002 and 2007, Hornsby 2005, and Perrine 2015.

appear extravagant by comparison. While it cannot be denied that truthmakers do in some sense offer explanations of the truth of truth-bearers, it is more productive to articulate the sort of philosophical investigation to which truthmaker theory speaks, and show how it contributes to it (as I shall do in the final section). My goal in this section is to show how truthmaker theory can accomplish its aims without relying on explanation. Hence, I now turn my attention to the reasons philosophers have attempted to build the notion of explanation directly into the relation of truthmaking itself. According to such a view, what it is to be a truthmaker is to be an explainer. My own view parallels what has come before: though it need not be denied that the truthmaking relation is an explanatory relation, this commitment is unilluminating. The ideas behind the thought that truthmaking is an explanatory relation are better articulated without adopting the language of explanation.

Earlier, I pointed out that explanation enters into the discussion of the truthmaking relation because it plays a role in accounting for cases where necessitation seems not to be sufficient for truthmaking. Necessitation as a necessary condition on truthmaking is far less controversial (but see Parsons 1999, Mellor 2003, and Briggs 2012), and can be seen as one way of accounting for how truths and truthmakers line up. By most accounts, Kripke himself is a truthmaker for $\langle \text{Kripke exists} \rangle$ and $\langle \text{Humans exist} \rangle$, but not for $\langle \text{Kripke is a philosopher} \rangle$ and $\langle \text{Quokkas exist} \rangle$. Necessitation can help explain why. Kripke's existence by itself guarantees the truth of $\langle \text{Kripke exists} \rangle$ and $\langle \text{Humans exist} \rangle$. It doesn't guarantee that Kripke is a philosopher (for he might have chosen a different career path) or that there are quokkas (because they're completely independent of him). Behind the judgments of all these cases of truthmaking (and non-truthmaking) is the thought that truths must be appropriately related to their truthmakers. Not just any object makes any truth true. Necessitation accounts for much of this relation, but it doesn't tell the whole story. As noted above, there are several kinds of cases that most truthmaker theorists accept demonstrate that necessitation is not sufficient for truthmaking. Kripke does not make it true that seven and five are twelve, nor does Kripke make it true that his father existed. More controversial are cases like the following. The mereological sum Kripke + Obama, like Kripke, necessitates $\langle \text{Kripke exists} \rangle$. Does it make it true? Gonzalo Rodriguez-Pereyra claims it doesn't (2006, 2009); Armstrong (2004) and Dan López de Sa (2009) claim it does. The disagreement here is whether "extraneous" parts "cancel" truthmaking. (As I argue below, abandoning explanation-first truthmaking can help dissolve this dispute.) All told, virtually all truthmaker theorists maintain that there are some counterexamples to the claim that necessitation is sufficient for truthmaking, though there is disagreement on how expansive the set of counterexamples is.

What else, then, do we need to know about the truthmaking relation in order to show why it doesn't obtain in the above cases, but does obtain in genuine cases of truthmaking? Explanation enters the scene at this point, and in two different ways. First, one might, like Liggins (2005), analyze the notion of truthmaking in terms of explanation. What it is to be a truthmaker just is to be an explainer. Second, one might impose explanation as being a constraint on truthmaking: x is a truthmaker for $\langle p \rangle$ only if x explains $\langle p \rangle$'s truth. I recommend against both routes.

I have suggested already why we should be cautious about putting too much theoretical weight on the notion of explanation. The issue of what objects make a certain proposition true does not vary according to contextual and pragmatic factors; bald appeals to explanation as the key to truthmaking are therefore useless unless they are supplemented by a precise account of a form of non-contextually sensitive explanation that is specifically suited for truthmaking. The better route for truthmaker theorists is to avail themselves of other resources that have been deployed to explain why necessitation isn't sufficient for truthmaking. If truthmaking is capturing some kind of dependence of truth on the world, then it ought to be a hyperintensional relation; as a result, necessitation will fail to fit the bill, as it is a merely intensional relation (cf. Schaffer 2008a). Trenton Merricks isolates from this observation a notion of "aboutness": "*bona fide* truthmakers are that which their respective truths are about" (2007: 27; cf. Smith 1999: 279). Merricks acknowledges that the notion of explanation is close at hand here, but he downplays its role: "I suspect that the idea that a truth must be explained by its truthmaker just is the idea that a truth must be appropriately about its truthmaker" (2007: 30).⁷ E. J. Lowe's brand of truthmaker theory cashes out the notion of truthmaking in terms of essential dependence: what it is for x to be a truthmaker for $\langle p \rangle$ is for the latter's essence to be such that it is true if x exists (2007). Schaffer himself understands truthmaking as a kind of grounding, which he takes to be a hyperintensional relation (2010).

The upshot is that there are other theoretical resources, besides explanation, available for capturing why truthmaking extends beyond necessitation. I am not claiming that these other notions (aboutness, essential dependence, grounding) do not also deserve scrutiny, or that they themselves have no connection to the notion of explanation. Rather, my point is that they show that truthmaker theory doesn't need to rely on the notion of explanation specifically (or fundamentally) in accounting for its core relation. Given the problems with relying on explanation

⁷ This quotation is instructive, as it shows how the mere presence of explanatory *language* ('because', 'in virtue of', 'responsible') is not by itself a guarantee that explanation is being relied on in the substantive way that I am arguing against. That one employs explanatory idioms—as I do myself—is not constitutive of taking the "explanatory-first" approach to truthmaking that I identify and criticize in this paper.

as the fundamental notion at stake, truthmaker theorists are better off exploring these other options.

So, truthmaking should not be analyzed in terms of explanation. But what is the problem with accepting explanatoriness as being a constraint on truthmaking? Again, my complaint here is that the claim is unilluminating, not that it is false. Yes, where truthmaking obtains, explanations may be found. But the issue is whether explanation is a theoretically useful tool that can be put to work within truthmaker theory. The sort of argumentative strategy that relies on explanation is deployed by Griffith (2013) when he argues against various accounts of truthmakers for negative existentials, and by Caplan and Sanson when they argue against Rhoda's (2009) theological truthmakers and various other accounts of presentist truthmakers (2011: 202). The argument style is as follows: x is suggested as a truthmaker for $\langle p \rangle$. But since x does not properly explain the truth of $\langle p \rangle$, x is not a truthmaker after all for $\langle p \rangle$.

This explanation-first strategy relies, dialectically speaking, upon prior judgments about when and where explanation obtains in order to arbitrate judgments about when and where truthmaking obtains. For this strategy to be effective, the pool of judgments about explanation must enjoy some kind of privilege over judgments about truthmaking. In other words, appeals to explanation must be prior to and independent of our judgments about truthmaking if they are to serve any dialectical purpose here. If not, this style of argument will just devolve into a series of question-begging arguments. Explanation can't sort between genuine and bogus truthmaking if our judgments about truthmaking are inseparable from our judgments about explanation. And this state of affairs is precisely what I suspect to be the case. Rodriguez-Pereyra denies that Kripke + Obama is a truthmaker for $\langle \text{Kripke exists} \rangle$ on the grounds that the former has an "irrelevant" part, which shows that $\langle \text{Kripke exists} \rangle$ is not true *in virtue of* (i.e., explained by) anything involving Obama. Armstrong and López de Sa, meanwhile, judge that $\langle \text{Kripke exists} \rangle$ is true in virtue of Kripke + Obama, and so would concede that it's explained by the sum. Caplan and Sanson assert that Rhoda's truthmaker for $\langle \text{Plato had a beard} \rangle$, namely, God's memory of Plato having a beard, "doesn't explain why the proposition that Plato had a beard is true", though they don't give any further exposition of their denial (2011: 202). Rhoda himself, meanwhile, self-imposes an "explanatory constraint" on his account of truthmakers, and claims that his proposed truthmakers do satisfy it (2009: 54). What these cases—which are paradigmatic instances of explanation-first truthmaker theory—illustrate is that it appears that there is no neutral spring of judgments about explanation from which we can draw and then utilize to sort out genuine truthmakers from the fakes. Everyone may concede that truthmakers must be explanatory; but disagreements about where explanation holds appear to track perfectly disagreements about where truthmaking holds.

As a result, while explanation may well be a theoretical constraint on truthmakers, dialectically speaking it is useless. One can deploy explanatoriness against a particular truthmaker theory only at the expense of begging the question.

None of this downplaying of explanation is meant to deny that we can make any headway in the disputes between Rodriguez-Pereyra and Armstrong and López de Sa, or between Rhoda and Caplan and Sanson.⁸ I, for one, suspect that Caplan and Sanson are correct that God's memories are a poor choice of truthmaker for claims about the past, and that Rodriguez-Pereyra's perspective can be resisted; my present view is that appeals to explanation will not be helpful in showing why.

5. Ontology-first Truthmaking

I have conceded that there are ways, perhaps many ways, of offering explanations of truths that make no use of truthmakers. What kind of explanation is appropriate in any given case depends upon the specifics of the explanatory request. The burden on the truthmaker theorist who concedes that there are non-truthmaking explanations of truths is to make the case for there being a kind of legitimate explanatory request that does indispensably rely on truthmakers. Articulating that sort of request is the goal of this section. What I intend to show is that there is a distinct set of philosophical questions for truthmaker theory to answer that go unaddressed by other sorts of explanatory inquiry. Developing truthmaker theory around those inquiries leads to what I call "ontology-first" truthmaking. This approach to truthmaking is superior in a number of ways, not least in its ability to dodge the infamous problem of negative existentials.

There can't be substantive, positive, synthetic truths in an empty universe. The proposition <There are penguins> can't be true in a world with no birds; <There is more gold than silver in the universe> can't be true in a world without metal. <Kripke is human> can't be true in a world without Kripke. What these banal remarks reveal is that truth—or at least some truth—is immediately dependent upon ontology. Truths have implications for our ontological commitments. So we can raise a question: for any given truth <*p*>, in what ways does <*p*>'s truth depend or not depend upon ontology? What *constraints* on one's ontology does a particular truth make? I suggest that truthmaking investigations be understood in this light. To ask what the truthmaker is for <*p*> is to ask Quine's (1948) ontological question in reference to it: What is there, with respect to <*p*>?⁹ Truthmaker theory is a way of *doing* ontology; it is not some separate

⁸ See, for instance, Asay 2016.

⁹ This is not to say, however, that ontology-first truthmaking is identical to Quine's metaphysical methodology: to ask Quine's question is not to answer it the way he does. For one thing, it's anachronistic to talk about Quine's views

metaphysical chore alongside and separate from ontology (and other metaphysical duties). So understood, the result of a “completed” truthmaker investigation (i.e., a comprehensive theory of what the truthmakers are for all the truths) is a completed ontology. To find out what there is, find out what the truthmakers are (cf. Armstrong 2004: 23).

I submit, then, that truthmaker theory does answer a philosophically important set of questions, questions which are compatible with but not answered by other explanatory answers. Why is <‘There are humans’> true? There are myriad answers, and they run the gamut from the mundane and informative to the controversial and complicated. Because there are humans. Because there was a genetic mutation at some crucial point in a particular species of great ape. These are both fine answers for the appropriate settings, but they don’t answer the question of what there is. The truthmaker theorist chimes in here to say that <‘There are humans’> is made true by a human. As a result, to commit to the truth of the proposition, one must ontologically commit oneself to a human—a certain kind of creature needs to be added to one’s ontology. Compared to the others, this is a fundamentally different sort of explanatory answer, if we choose to continue using that language. In offering a “truthmaking explanation”, one is, in essence, giving directions for ontology building. Other explanatory answers respond by stating a fact (i.e., truth), or an argument. In effect, they state other true propositions as a way of explaining the truth of the proposition in question. A truthmaking explanation, by contrast, provides an object, a truthmaker, not another truth.¹⁰

about “truthmaking”. For another, it is no presupposition of truthmaker theory that ontological investigation applies only to theories that have been regimented into first-order logic. Nor does it assume that ontological commitments can be simply “read off” the truths once so regimented: truths need not wear their ontological implications on their sleeves. The relationship between “theories of ontological commitment” that one finds in, say, Quine 1960 and Azzouni 2004, and theories of truthmaking is complicated. See Cameron 2008, Schaffer 2008b, and Rettler 2016 for discussion, as I cannot explore the matter in full here. One point of difference is clear. Take some true accidental predication, such as <*a* is F>. Quine takes this to force an ontological commitment only to the particular *a*, and to there being Fs. Many truthmaker theorists (such as Armstrong) think there needs to be a state of affairs—what we might name ‘*a*’s being F—to make it true. Whether we call *a*’s being F an *ontological commitment* of <*a* is F> depends on how we choose to use the phrase ‘ontological commitment’. What’s clear is that <*a* is F> doesn’t quantify over *a*’s being F, and so truthmaking questions cannot be assumed to be settled merely by settling on the values of one’s variables.

¹⁰ One might note here that in offering some object *x* as a truthmaker for some proposition, one *is* offering another truth, namely, the proposition that *x* exists. This observation is fine, so long as we keep in mind that it’s philosophically contentious just which truths are the ontologically committing ones. Quine (1960) has a famous view on that matter, but it’s not the only one. See Azzouni 2004 for discussion.

Hence, I maintain that the distinctive contribution that truthmaker theory has to offer is not satisfied by other kinds of explanations or explanatory schemas (such as ‘ $\langle p \rangle$ is true because p ’). These other explanations explain truths with other truths, and so are unsuited for the distinctly ontological investigations that motivate truthmaker theory. We can choose to call truthmaking claims “truthmaker explanations” if we so desire (or “ontological explanations”, as in Smith and Simon 2007¹¹); they do, after all, explain what the ontological requirements are for a truth. But, in line with my general outlook, I do not recommend putting much stock into the word. Furthermore, it is important to appreciate how the above perspective is different from other views on truthmakers, which lean more heavily on a more robust form of explanation. As I have argued, those forms of truthmaker theory that rely fundamentally on the notion of explanation face serious difficulties.

One way to describe my perspective on truthmaking is that it is a form of ontological “accounting”. We want our beliefs about the world and our ontological commitments to be appropriately coordinated. Asking after truthmakers is a way of pursuing ontological accountability—of ensuring that our ontological commitments are up to snuff, given the beliefs we hold about the world. When truthmaker theory is understood in this way, we can make sense of its foundational role in the minds of theorists like Armstrong and Charlie Martin, who diagnosed a common problem plaguing phenomenalism and behaviorism: these theories accepted certain counterfactual truths about the world, but had a vacant ontology with respect to them (see Armstrong 2004: 1-3). All sorts of counterfactual truths about possible experiences and behaviors were posited, but no ontological grounding was given to account for how they could be true in our world. When Armstrong and Martin decry the attempts of phenomenists and behaviorists to posit truths with no truthmakers, they are calling attention to the fact that these theorists are ignoring the ontological question (‘What is there?’) for these truths, or answering it unsatisfactorily with ‘nothing’.

What I am recommending is an “ontology-first” perspective on truthmaking that emphasizes the question ‘What is there?’, in contrast to the “explanation-first” perspective I have

¹¹ It’s not clear to me that Smith and Simon’s use of ‘ontological explanation’ forces them into the explanation-first camp, since they explicate what they mean by ‘explanation’ in a way similar to my articulation of ontology-first truthmaking. So as far as I can tell, it’s open to them to agree with all of my remarks on explanation. That said, there are other aspects of their view with which I would contend. For instance, they argue that when T is a truthmaker for $\langle p \rangle$, T ’s existence is not only sufficient, but also *necessary* for $\langle p \rangle$ to be true. Thus, they deny that Socrates makes true $\langle \text{There are humans} \rangle$, which I believe is an unwelcome consequence. (Of course, if their view on this case is a product of some prior set of explanatory judgments, then they may well belong to the explanation-first camp.)

been challenging that emphasizes the question ‘Why is $\langle p \rangle$ true?’. Many explanatory projects are well-suited for answering the latter sort of question; it’s the former that is distinctive to truthmaking investigation. Plus, there are a number of theoretical advantages to taking the former approach that I shall now highlight.

Perhaps most prominently, the ontology-first perspective justifies a non-maximalist view of truthmakers. Maximalism is the view that all truths have truthmakers. While straightforward and simple as a metaphysical theory, maximalism runs into immediate trouble concerning truths such as negative existentials. It’s true that there are no hobbits, but it’s not at all obvious that there is any object in the world whose existence guarantees that there are no hobbits. Simply put, maximalism requires that for there not to be any entities of a certain kind, there must be some other entity of a different kind. Yet there is no clear argument to be made for such a strong metaphysical principle. (Famously, Armstrong admits he has no argument for maximalism; he simply hopes that “realist” inclined philosophers will find it compelling (2004: 7).) Under the spell of explanatory-first truthmaking, one might indeed see a need for a truthmaker. To explain truths, on this view, one must offer a truthmaker. Allowing a truth to pass without a truthmaker is, in effect, to render it metaphysically inexplicable. Hence, Molnar proclaims that such moves lead to “ontological frivolousness” (2000: 85). But this attitude is an unfortunate consequence of explanatory-first thinking about truthmaking; it relies on conflating the task of explaining a truth with offering its requisite ontological grounds (or lack thereof).

According to ontology-first truthmaking, by contrast, there is no immediate call to find a truthmaker for $\langle \text{There are no hobbits} \rangle$. The ontology-first truthmaker theorist considers what sorts of ontological constraints such a view imposes on our worldview. In this case, the proposition certainly does offer them: anyone who adopts the proposition thereby commits to an ontology without any hobbits. Negative existentials impose *negative* constraints on our ontology. But there is no immediate pressure to commit to a separate, positive constraint on some other entity. Such a commitment follows only *after* one accepts maximalism, and ontology-first truthmaking is not antecedently committed to such a strong metaphysical principle. Ontology-first truthmaking acknowledges that truths can place negative and positive constraints on one’s ontology; however, explanatory-first truthmaking—and its commitment to maximalism—only ever looks for positive ontological constraints.

Ontology-first truthmaking thus has an answer to maximalist truthmaking and its puzzle over negative existentials. My diagnosis is that maximalism appears (or should appear) compelling only to those who think that truthmakers provide an indispensable kind of explanation, one that every truth needs if it is not to be left primitive and unexplained. No one, I would agree, should

be happy to admit that truths like <There are no hobbits> and <There are no unicorns> are metaphysically brute and bereft of any sort of explanation. But once we recognize that truthmakers' fundamental role is not to explain truth, but to frame ontological investigation and guide ontology building, the maximalist impulse evaporates. There is no *a priori* argument for why all truths require truthmakers, once we divorce truthmaking and explanation. For example, the principle of sufficient reason (that all truths have an explanation), even if true, lends no support to maximalism once we grant that truthmakers are not the privileged explanation of truth. Here we see the first significant advantage of ontology-first truthmaking: it offers the basis for a principled non-maximalist truthmaker theory that avoids the infamous ontological posits (totality states of affairs, absences, negative facts, etc.) of maximalist accounts.

A second advantage of ontology-first truthmaking is that it is less reliant on pre-theoretical judgments about truthmaking and explanation. Above, I argued that explanation-first truthmaking relies on an antecedent stock of judgments about explanation in order to arbitrate disputes over whether or not some object is a truthmaker (i.e., proper explanation) for a given truth, and suggested that there is no such pool of independent judgments. Recall the dispute between Rodriguez-Pereyra and López de Sa over whether or not the mereological sum Obama + Kripke is a truthmaker for <Kripke exists>. There is no dispute here over whether or not the mereological sum exists: as they both agree that it does (or, at least, that its components do), their disagreement is solely over whether or not it stands in the truthmaking relationship to the proposition. From the accounting perspective of ontology-first truthmaker theory, however, both sides have done their due diligence. Both Kripke and Kripke + Obama offer sufficient ontological grounds for the truth in question. Neither view can be accused of shirking the task of coordinating one's ontology with one's beliefs about the world. Hence, I see the debate here as an idle one. The issue is whether or not an object with "extraneous" parts can provide the right sort of explanation for a given truth. But this question arises only given the presumption that the task of truthmakers is to provide explanations for truth. Truthmaker theory, rightly understood, is an admonishment to keep your ontological ducks in a row; to saddle this perfectly reasonable philosophical responsibility with a heavy-duty view about how true propositions are to be explained is an unreasonable and gratuitous addition.

Now, it's true that positing Obama + Kripke as a truthmaker for <Kripke exists> is ontological overkill, in the sense that someone who offers merely Kripke has a more parsimonious account of the truthmaker for the proposition. Likewise, it's correct to point out that the truth of <Kripke exists> is not by itself sufficient for justifying an ontological commitment to Obama + Kripke. It's the truth of <Obama exists> together with the truth of <Kripke exists> that provides

an ontological justification for Obama + Kripke. That said, it does not follow that any error is made in claiming that the mereological sum is a truthmaker for the two individual propositions. The reason why is that truthmaking is best understood as a holistic enterprise.¹² Fundamentally, we want our ontology and our beliefs to be properly aligned as a whole; there is thus no need for individual truthmaking claims to always require a perfect isomorphism between truth and truthmaker. To think otherwise is to cling to a lingering commitment to a correspondence-style theory of truth.¹³ There is no harm in offering a “too large” object in response to some truthmaking query, provided that the object is independently justified. The enterprise of explanation-first truthmaking, by contrast, motivates a more burdensome “piecemeal” approach to truthmaking claims. Each individual truth needs to be paired with an item from the world that is not too large, not too small, but just right—the “Goldilocks” theory of truthmaking.

Even setting aside my prior objection that Goldilocks-style truthmaking relies on an unmotivated appeal to explanation (plus an unwarranted commitment to maximalism), there are other problems that it faces. When does a candidate truthmaker have too many parts? The case of Obama + Kripke having an extraneous part with respect to <Kripke exists> is fairly straightforward. But difficult questions are nearby. One might take Kripke himself to be the sum of his parts. Yet Kripke could lose one of those parts without <Kripke exists> thereby failing to be true. This would seem to suggest that <Kripke exists> is not true in virtue of that part of Kripke that could go missing—if the truth can survive the loss of that part, then it doesn’t depend on that part. Explanation-first truthmaker theorists face the challenge of specifying just what parts are required, since it takes just one extraneous part to nullify truthmaking. This is a difficulty that does not confront ontology-first truthmaking, which eschews the call for perfectly matched truths and truthmakers.

6. Conclusion

My argument has been that the demanding explanation-first approach to truthmaking is unmotivated. It boasts no advantage in how it fulfills the ontological project pursued by ontology-first truthmaking, and adds a burdensome requirement of how truths are to be explained that comes without proper justification. Fortunately, the ontology-first approach to truthmaking provides a theoretically economical perspective on truthmaking that speaks to its core motivation

¹² My thanks go to Mark Colyvan for stressing this aspect of my view.

¹³ I discuss this connection more in Asay 2016: 52-53. See also David 2009 for more on the relationship between truthmaking and correspondence.

(providing the right ontological grounds for truths), and sets aside the problematic connections to explanation that have been unjustifiably grafted onto the enterprise in recent years.¹⁴

Although I reject the explanation-first approach to truthmaking, I still find the theory of truthmaking to be of considerable philosophical interest. It calls attention to the fact that ontological investigation is not exhausted by simply attending to Quinean ontological commitments. Truthmaker theorists, for example, can explore the question of what makes counterfactual judgments true, without having to somehow break them down into the sentences of a first-order language that only uses truth-functional connectives. Furthermore, I've argued previously that the idea of truthmaking can be helpful in articulating what is at stake in various realism debates in philosophy (Asay 2012), and resolving some longstanding disputes within them (Asay 2013). Thinking about truthmaking is of great philosophical utility, even when stripped of some of the pretensions that accompany explanation-first truthmaking. Truthmaker theory, simply put, doesn't need the notion of explanation, and is better off without it.

Acknowledgments

This paper was presented at the Explananza workshop and conference at the University of Western Australia in December 2015. My thanks go to all the participants there, particularly David Braddon-Mitchell, Mark Colyvan, Lina Jansson, Kristie Miller, Michael Rubin, Jonathan Tallant, and Al Wilson, and especially to Sam Baron for bringing everyone together. Sam and Jonathan also provided very helpful feedback on later drafts. Thanks also go to the referees for the journal. The work described in this paper was substantially supported by a grant from the Research Grants Council of the Hong Kong Special Administrative Region, China (HKU 23400014).

References

- Angere, Staffan. 2015. The logical structure of truthmaking. *Journal of Philosophical Logic* 44: 351-374.
- Armstrong, D. M. 2004. *Truth and Truthmakers*. Cambridge: Cambridge University Press.
- Asay, Jamin. 2012. A truthmaking account of realism and anti-realism. *Pacific Philosophical Quarterly* 93: 373-394.
- . 2013. Truthmaking, metaethics, and creeping minimalism. *Philosophical Studies* 163: 213-232.

¹⁴ Perhaps more carefully put, my view is that the ideas behind both approaches have been with truthmaker theory from the beginning, but that explanation-first truthmaking has been rising in prominence and visibility. By explicitly distinguishing the two, I hope to restore what I take to be truthmaking's original ontological focus—a focus which was always primary, though not perhaps exclusive.

- . 2016. Logic and/of truthmaking. In *Non-classical Logic, Structural Modelling and Meaning: The Proceedings of the Second Taiwan Philosophical Logic Colloquium TPLC-2014*, eds. Syraya Chin-Mu Yang, Duen-Min Deng, and Hanti Lin, 37-55. Heidelberg: Springer.
- Asay, Jamin, and Sam Baron. 2014. The hard road to presentism. *Pacific Philosophical Quarterly* 95: 314-335.
- Azzouni, Jody. 2004. *Deflating Existential Consequence: A Case for Nominalism*. Oxford: Oxford University Press.
- Baron, Sam. 2013. A truthmaker indispensability argument. *Synthese* 190: 2413-2427.
- Bigelow, John. 1988. *The Reality of Numbers: A Physicalist's Philosophy of Mathematics*. Oxford: Clarendon Press.
- Briggs, Rachael. 2012. Truthmaking without necessitation. *Synthese* 189: 11-28.
- Cameron, Ross P. 2008. Truthmakers and ontological commitment: or how to deal with complex objects and mathematical ontology without getting into trouble. *Philosophical Studies* 140: 1-18.
- Caplan, Ben, and David Sanson. 2011. Presentism and truthmaking. *Philosophy Compass* 6: 196-208.
- Chang, Hasok. 2004. *Inventing Temperature: Measurement and Scientific Progress*. Oxford: Oxford University Press.
- Correia, Fabrice. 2011. From grounding to truth-making: some thoughts. In *Philosophical Papers Dedicated to Kevin Mulligan*, ed. A. Reboul, 1-13. Genève. URL <http://www.philosophie.ch/kevin/festschrift/>.
- Daly, Chris. 2005. So where's the explanation? In *Truthmakers: The Contemporary Debate*, eds. Helen Beebe and Julian Dodd, 85-103. Oxford: Clarendon Press.
- David, Marian. 2009. Truth-making and correspondence. In *Truth and Truth-Making*, eds. E. J. Lowe and A. Rami, 137-157. Stocksfield: Acumen.
- Dodd, Julian. 2002. Is truth supervenient on being? *Proceedings of the Aristotelian Society* (New Series) 102: 69-85.
- . 2007. Negative truths and truthmaker principles. *Synthese* 156: 383-401.
- Fiocco, M. Oreste. 2013. An absolute principle of truthmaking. *Grazer Philosophische Studien* 88: 1-31.
- Griffith, Aaron M. 2013. On some alleged truthmakers for negatives. *Thought* 1: 301-308.
- Hempel, Carl G., and Paul Oppenheim. 1948. Studies in the logic of explanation. *Philosophy of Science* 15: 135-175.
- Hornsby, Jennifer. 2005. Truth without truthmaking entities. In *Truthmakers: The Contemporary*

- Debate*, eds. Helen Beebe and Julian Dodd, 33-47. Oxford: Clarendon Press.
- Kitamura, Naoaki. 2014. Is any alleged truthmaker for negatives explanatorily deficient? *Thought* 3: 200-207.
- Liggins, David. 2005. Truthmakers and explanation. In *Truthmakers: The Contemporary Debate*, eds. Helen Beebe and Julian Dodd, 105-115. Oxford: Clarendon Press.
- . 2012. Truth-makers and dependence. In *Metaphysical Grounding: Understanding the Structure of Reality*, eds. Fabrice Correia and Benjamin Schnieder, 254-271. Cambridge: Cambridge University Press.
- López de Sa, Dan. 2009. Disjunctions, conjunctions, and their truthmakers. *Mind* (New Series) 118: 417-425.
- Lowe, E. J. 2007. Truthmaking as essential dependence. In *Metaphysics and Truthmakers*, ed. Jean-Maurice Monnoyer, 237-259. Frankfurt: Ontos Verlag.
- Mellor, D. H. 2003. Real metaphysics: replies. In *Real Metaphysics: Essays in Honour of D. H. Mellor*, eds. Hallvard Lillehammer and Gonzalo Rodriguez-Pereyra, 212-238. London: Routledge.
- Merricks, Trenton. 2007. *Truth and Ontology*. Oxford: Clarendon Press.
- Molnar, George. 2000. Truthmakers for negative truths. *Australasian Journal of Philosophy* 78: 72-86.
- Parsons, Josh. 1999. There is no 'truthmaker' argument against nominalism. *Australasian Journal of Philosophy* 77: 325-334.
- Perrine, Timothy. 2015. Undermining truthmaker theory. *Synthese* 192: 185-200.
- Quine, Willard Van Orman. 1948. On what there is. *Review of Metaphysics* 2: 21-38.
- . 1960. *Word and Object*. Cambridge: MIT Press.
- Restall, Greg. 1996. Truthmakers, entailment and necessity. *Australasian Journal of Philosophy* 74: 331-340.
- Rettler, Bradley. 2016. The General Truthmaker View of ontological commitment. *Philosophical Studies* 173: 1405-1425.
- Rhoda, Alan R. 2009. Presentism, truthmakers, and God. *Pacific Philosophical Quarterly* 90: 41-62.
- Rodriguez-Pereyra, Gonzalo. 2006. Truthmaking, entailment, and the conjunction thesis. *Mind* (New Series) 115: 957-982.
- . 2009. The disjunction and conjunction theses. *Mind* (New Series) 118: 427-443.
- Rosen, Gideon. 2010. Metaphysical dependence: grounding and reduction. In *Modality: Metaphysics, Logic, and Epistemology*, eds. Bob Hale and Aviv Hoffmann, 109-135. Oxford: Oxford University Press.
- Russell, Bertrand. 1918. The philosophy of logical atomism [lectures 1-2]. *The Monist* 28: 495-527.
- Sanson, David, and Ben Caplan. 2010. The way things were. *Philosophy and Phenomenological Research*

81: 24-39.

Schaffer, Jonathan. 2008a. Truth and fundamentality: On Merricks's *Truth and Ontology*. *Philosophical Books* 49: 302-316.

—. 2008b. Truthmaker commitments. *Philosophical Studies* 141: 7-19.

—. 2010. The least discerning and most promiscuous truthmaker. *Philosophical Quarterly* 60: 307-324.

Schnieder, Benjamin. 2006. Truth-making without truth-makers. *Synthese* 152: 21-46.

Schulte, Peter. 2011. Truthmakers: a tale of two explanatory projects. *Synthese* 181: 413-431.

Smith, Barry. 1999. Truthmaker realism. *Australasian Journal of Philosophy* 77: 274-291.

Smith, Barry, and Jonathan Simon. 2007. Truthmaker explanations. In *Metaphysics and Truthmakers*, ed. Jean-Maurice Monnoyer, 79-98. Frankfurt: Ontos Verlag.

Talasiewicz, Mieszko, Joanna Odrowąż-Sypniewska, Wojciech Wciórka, and Piotr Wilkin. 2013. Do we need a new theory of truthmaking? Some comments on Disjunction Thesis, Conjunction Thesis, Entailment Principle and explanation. *Philosophical Studies* 165: 591-604.

van Fraassen, Bas C. 1980. *The Scientific Image*. Oxford: Clarendon Press.

Williamson, Timothy. 1998. Bare possibilities. *Erkenntnis* 48: 257-273.